

REMARKS

The Examiner has rejected claim 45 under 35 U.S.C. § 112 second paragraph as indefinite for failing to have antecedent support for “tool blades” in line 7. In response, applicant has amended claim 45 by substituting “bits” for “blades.” Antecedent support for tool bits may be found in line 2 of claim 45.

Similarly, applicant has amended claim 13 to cure a Section 112 lack of antecedent support defect.

Applicant has changed the dependency of claims 34 and 36 by making them dependent upon claim 37 rather than claim 31.

Finally, applicant has amended claims 1, 2, 17 and 45 specifying that the springs referred to in those claims are integral leaf springs. Claims 24, 26, 31, 34, 38, 39 and 43 already specify that the springs are integral leaf springs. Claim 17 has also been amended to change the order of the adjectives that modify “spring.”

The Examiner has rejected all claims in the application as obvious under 35 U.S.C. § 103 (a) over Moulton, U.S. Patent No. 1,800,843. As pointed out by the Examiner, Moulton discloses a central divisional plate 3 positioned between a pair of springs 6. Moulton likens his arrangement to that of a traditional pocket knife “... after the manner of the usual knife blade, being backed by backing springs 6 as in the usual pocket knife construction.” (Moulton, Col. 1, 43 - 46.) Applicant also referred to this usual pocket knife construction in the Background of the Invention portion of the Specification. “For example, traditional folding pocket knives include an independent back spring, separate from and fastened to the frame or

scales of the knife, that bear against the base of the blade.” Applicant and Moulton agree upon the construction of a traditional pocket knife.

The Examiner rejected claims 1, 17, 39 and 45 as obvious over Moulton “to make the flanges integral to ease of assembly and/or save manufacturing costs, since it has been held that forming in one piece an article which has been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).”

As a preliminary matter, applicant does not believe that citation to Moulton establishes a *prima facie* case of obviousness. For the reasons explained below, Moulton contains no suggestions or motivation to modify Moulton to arrive at the claimed invention. Nor does Moulton teach or suggest all the claims limitations.

Nor does applicant believe that the *Howard* case supplies a convincing line of reasoning to explain why Moulton should be modified and additional claim limitations added (See MPEP §§ 2142 and 2143). The facts in the *Howard* case (casting in one piece a portion of a cast iron stove that had previously been cast in two pieces) are not sufficiently similar to the present case of modifying the construction and method of manufacture of a typical pocket knife.

Further, since the central plate and independent backing spring are typically of different metal with different characteristics (see a conventional pocketknife) it is not a matter of obvious engineering choice to make them integral.

Applicant submits that claims 1, 17 and 45 as amended calling for an integral leaf spring, and claim 39 as previously presented also calling for an integral leaf spring, are not obvious over Moulton. In Moulton, as with the traditional pocket knives, the independent backing springs are pinned or riveted to the central plate and side plates by a center pin

extending through a thickened portion of the spring, with the resilient tips of the backing springs bearing on the base of the knife or implements.

The *Howard* case cited by the Examiner concerned cast stoves, and the Supreme Court held that "... it is no invention to cast in one piece an article that has formerly been cast in two pieces and put together" Applicant respectfully disagrees with the Examiner and submits that it would not be obvious to cast the backing springs and central plate of the traditional pocket knife in one piece to produce an central plate with integral flanges and integral leaf springs as claimed.

The *Howard* case involved two cast pieces and the Supreme Court merely said that it is no invention to cast them as one. Moulton does not disclose whether either the central division plate or the backing springs are cast, but Moulton does disclose that the structure of his devices is "of the general form and appearance of a pocket or clasp knife" with "backing springs as in usual pocket knife construction." (Col. 1, 40 - 46.) The independent backing springs of a usual pocket knife are typically made of forged steel tempered to give them resiliency. The central plate of a usual pocket knife is typically stamped metal, often of a soft metal such as brass or aluminum, but usually having different characteristics, such as strength, weight, malleability, thickness, resiliency, etc., than the independent spring. Specifically, the liner or central plate of a pocketknife is typically lighter, thinner, lower cost and not heat treated as compared to the backing spring. Therefore, the difference in the nature, characteristics and purpose of the central plate and the springs do not make it an obvious engineering choice that the two pieces should be cast as one piece. In fact, the different nature and characteristics of the central plate and the springs suggest that they should not be case as one piece.

Casting typically does not make good springs because of the resulting grain structure of the metal. Moreover, casting is not suitable for forming the thin flange of the inventions.

Casting the backing spring and central plate shown in Moulton in one piece would render the springs inoperable unless several additional manufacturing steps were taken.

First, casting the central plate and backing springs as one piece would not permit the tips of the backing springs to flex. In Moulton, the thickened portion of the independent backing spring is pinned to the central plate, the pin serving as the fulcrum for the resilient spring tips. The springs shown in Moulton are a different type than the leaf springs of the present invention. To create leaf springs from a one-piece casting, it would be necessary to separate the spring tips from the central plate. However, the Moulton knife shown and described has the independent backing springs positioned up against the central plate with virtually no space therebetween. This arrangement is not arbitrary, it contributes to the strength and rigidity of the knife handle. Applicant doubts that it would be possible, and it would certainly not ease assembly or save manufacturing costs, to devise a mold that would enable cast springs tips to be free to flex yet still touch the integrally cast central plate.

Nor would it be practical, ease assembly, or save manufacturing costs to perform an extra manufacturing step to partially cut the one-piece casting to free the spring tips from the central plate. This extra step would likely add to the manufacturing cost. Also, cutting the spring tips free of the central plate would leave a space between the spring tips and the central plate, while Moulton teaches that the spring tips should lie against the central plate.

Even after the spring tips were freed from the casting, the casting would have to be tempered to give the springs the required resiliency. Applicant is not aware of a process that would economically temper only the spring tips, so the entire one piece casting would have to be tempered, again adding to the expense. There is no necessity that the central plate be tempered.

Finally, nothing in Moulton suggests that an integral plate, flange and leaf spring should be substituted for traditional independent backing spring, and it would be counterintuitive for someone skilled in the art to do so. A flange, with integral resilient leaf springs and integral along a portion of its length with a central plate is not equivalent to a central plate pinned to an independent spring. The leaf spring does not work in the same manner as the independent fulcrum-style independent spring shown in Moulton, and pinning the thickened portion of the spring to the central plate at one location as shown in Moulton is not equivalent to an integral juncture between the plate and flange. The resulting structure involves a different type of spring that works in a different manner. The Examiner's suggestion of forming the central plate and spring as one piece changes not only the method of manufacture, but the essential character of the device. In contrast, the character of the cast stove discussed in the *Howard* case is not changed by casting two cast pieces as one cast piece.

The Examiner has rejected claims 2 - 6, 8, 10, 11, 12, 18 - 23, 40 and 41 as obvious over Moulton since Moulton meets all the limitations. Claims 2 - 6, 8, 10, 11, 12 and 18 - 23 have now been amended, either directly or in their chain of dependency, to include the limitation of an integral leaf spring. Claims 40 and 41 as originally presented include an integral leaf spring. Moulton does not disclose an integral leaf spring and therefor does not meet all the limitations of the amended claims. Further, with regard to claim 8, Moulton does not disclose

flanges extending from first and second edges of the central plate. Instead, the Moulton springs that the Examiner has characterized as flanges, extend from the same edge of Moulton's central plate.

The Examiner has rejected claims 7, 9 and 42 over Moulton as meeting all the limitations except for location of the parts since it has been held that rearranging parts of an invention involve only routine skill in the art (*in re Japikes*).

With regard to claim 7, Moulton does not show an integral leaf spring as required by independent claim 1 as amended. Further Moulton does not suggest, nor would it be obvious, to have one end of the independent backing spring shown in Moulton located at an intermediate portion of the plate. The Moulton independent backing spring is pinned to the plate in the intermediate region of the plate, making it impossible for the Moulton backing spring to flex proximate the intermediate portion of the plate. In order to morph the Moulton reference into the invention of claim 7, it would be necessary to shorten the Moulton spring and move the fastening pin, leaving no spring for the other end of the Moulton knife.

With regard to claim 9, Moulton does not show an integral leaf spring as required by amended claim 1. Further, Moulton shows two independent backing springs arranged next to the central plate at one edge of the plate. It would not be obvious in view of Moulton to form one integral leaf spring along the top of the central plate and form a second integral leaf spring along the bottom of the central plate. The same applies to claim 42. The *Japikes* case involved moving a switch and is not particularly instructive with respect to the present situation which involves not only relocation of a feature, but a complete change in the nature and function of the device.

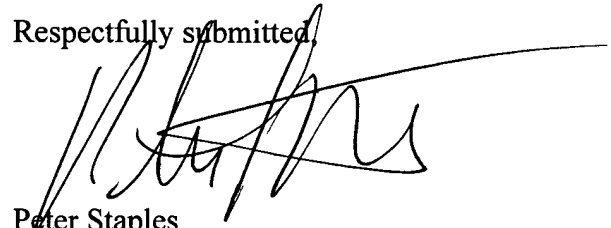
The Examiner has rejected claims 13 - 16 saying that Moulton meets all the limitations, except for a second plate integrally joining the second flange and a third flange, and that it would be obvious to do so to define more tool receiving areas, “since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.” First, independent claim 1, from which claims 13 - 16 depend, either directly or through intermediate dependent claims, has been amended to claim an integral leaf spring. For the reasons set forth above, an integral flange and leaf spring are not anticipated or obvious in view of the plate and independent backing springs of Moulton. Further, the structure claimed in claims 13 - 16 and shown in Figs. 16 - 19, i.e., a channel with a flange extending outwardly from a top edge of the channel, is not obvious in view of the central plate and independent backing springs by Moulton. Contrary to *St. Regis*, applicant is not rearranging older (Moulton) elements (central plate and independent spring pinned thereto), but is configuring different elements (with different characteristics) in a new combination.

Regarding claims 24 - 30, 31 - 38, 43 and 44, the Examiner’s position is that “Moulton as modified above with respect to the location of parts and duplication of parts meets all the limitations.” Applicant submits that for the reasons set forth above, Moulton as modified does not meet all the limitations of the claims as amended.

Further, with respect to claims 30 and 36, Moulton does not show an integral channel with an integral flange extending away from the channel, the integral flange having an integral leaf spring and further including an independent spring within the integral channel. Nor is this arrangement obvious in view of Moulton.

In view of the foregoing amendments and remarks, reconsideration and allowance of claims 1 - 45 is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Peter Staples', is written over the text 'Respectfully submitted,'. The signature is fluid and cursive, with a long horizontal stroke extending to the right.

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